

EXHIBIT 8

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Elon Musk vents about California's lane markings confusing Tesla's autopilot

By **Matt McFarland** October 14, 2015

What's really difficult about building a self-driving system capable of traveling on highways? To answer that question Wednesday afternoon, Tesla chief executive Elon Musk showed reporters a stretch of Interstate 405 near Los Angeles International Airport while unveiling the new technology.

"We really need better lane markings in California. This is crazy," said Musk, referring to the photo above. "If we were in Germany or Japan or China this would be great — it would be easy because we can actually see clear lane markings."

That stretch of Interstate 405 is a concrete road, so there's a seam between the lanes. There are also two sets of lane markings and they're angled at slightly different directions. So the Tesla autopilot couldn't tell what was the real lane, making navigation difficult.

"Normally you can exclude sort of strange figments on the road, like skid marks, whatever because they're not where the lane is," Musk said. "But in this case you have the true lane position and the sort of fake-lane position, and they're diverging. The camera system would then follow the diverging system and go into the wrong lane."

Tesla knows there would be times when visual cues would be misleading, so it would need to revert to stored information on roadways. Tesla had a driver drive the stretch of Interstate 405 so that the lane could be precisely mapped out.


Of course, Tesla hasn't been able to do this on every poorly marked stretch of roads in California and beyond. The company is advising drivers to keep their hands on the wheel, and they should be ready to take control at any time.

"We still think of it as sort of as a public beta," Musk said. "So we want people to be quite careful when using autopilot."

It's currently suited for highway driving, not city or suburban streets. The system isn't yet taking into account stop signs or red lights, and drivers will be liable for any crashes while autopilot is activated.

"It should not hit pedestrians, hopefully," Musk said.

Related: [Watch Tesla's new autopilot handle highway driving](#)

Matt McFarland is the editor of Innovations. He's always looking for the next big thing. You can find him on Twitter and Facebook.  Follow @mattmcfarland